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Dipkumar Patel

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Links

Github:// immortal3
CodeChef:// immortal3
(Highest Rating: ⋆⋆⋆⋆⋆)
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Education

Ahmedabad University

B.Tech in ICT
2015-2019

Skills

Programming

• Python, C/C++, JavaScript, Java, Sql

Libraries

• Pytorch, Flask, Opencv, Keras, Tensorflow, Pandas, Sklearn

Software

• Git, MATLAB, Xilinx ISE

Publication

• MMPL (Medicine Multi-Participant Ledger) at International Workshop on Blockchain Technologies (IWBT 2018), NIT Warangal. (Accepted)

Achievements

• Winner of Ingenious Hackathon 2017

Coursework

Undergraduate

High Performance Computing
Machine Learning
Computer Vision
Introduction to Blockchain
Cloud Computing
Information System Security

MOOC

Deep Learning Specialization by deeplearning.ai
Data Structures and Algorithms Specialization by UC San Diego

Experience

Fero.AI | Machine Learning Engineer

Sep 2019 - Present | Ahmedabad, India

• Building Machine Learning solutions for the Fero.ai ecosystem
• Worked on Semantic Segmentation (Mean IOU: 85%). Built custom image stitching algorithm to handle plain surfaces.
• Implemented cross-lingual speech intent classification (F1-score: 0.92)
• Solved vehicle routing problem for delivery management system
• Pytorch, Opencv, Django, Python, Flask, Javascript

Fero.AI | Machine Learning Intern

Jan 2019 - May 2019 | Ahmedabad, India

• Searching Near-duplicate video in a massive database of videos. The project was focused on providing a portal for reverse video-search.
• Improved both signature extraction from video and retrieval of a similar signature. Achieved accuracy of 92% (treating as Binary Classification).

Fusion Informatics | Computer Vision Intern

May 2018 - June 2018 | Ahmedabad, India

• Created CCTV surveillance software for classification and localization of human with a weapon(knife and pistol), fire, and smoke.
• Other features include identifying previously detected humans with a weapon, support for multiple cameras including IP cameras and email alerts.

Projects

Image Saliency Detection | link

• As humans, We only focus on certain parts of the image which is called a salient region. This project tries to emulate human visual perception by predicting the Saliency map (achieved 0.77 AUC) of a given image.

Autoencoder Based Communication System | link

• Implementation of novel deep learning based end-to-end communication system which can outperform state-of-the-art modulation Schemes.
• Autoencoder is used to remove noise from the communication channel through end-to-end learning.

Binary Gender Classification from Facial Image | live demo

• Classification of the gender from the facial image of a person. Implemented compact CNN and gained an F1-score of 0.94 with real-time performance.
• Client-side deployed using Tensorflow.js.

File System (EbFs) | link

• Created portable and secure hierarchical File System from scratch. EbFs is inspired by ext2fs (Linux file system) which used inode for storing meta-data.